What is claimed is:

1. A fiber for use in an electronic display, wherein said fiber comprises:

a) at least one electrode; and

b) a lens function designed into at least a part of said fiber.

2. The fiber of claim 1, wherein said electrode is a metal wire electrode contained within or on the surface of said fiber.

3. The fiber of claim 1, wherein said lens function changes a direction of the light passing through said fiber.

4. The fiber of claim 1, wherein said lens function changes a focus of the light passing through said fiber.

5. The fiber of claim 1, wherein said lens function is located on at least one section of at least one surface of said fiber.

6. The fiber of claim 5, wherein said lens function is created by a shape of said fiber surface selected from the group consisting of:

a) a convex shape;

b) a concave shape; and

c) a combination of a convex and a concave shape.

7. The fiber of claim 5, wherein said lens function is created with a lens selected from the group consisting of:

a) a binary lens;

b) a Fresnel lens; and

c) a lenticular lens.

8. The fiber of claim 1, wherein said lens function is created inside said fiber using a material to form said lens having a different index of refraction than said fiber material.

9. The fiber of claim 1, further comprising at least one absorbing region within said fiber or on said fiber surface, which creates an aperture.

10. The fiber of claim 1, further comprising at least one reflecting region within said fiber or on said fiber surface, which creates an aperture.

11. The fiber of claim 1, wherein said fiber further comprises at least one absorbing region such that said absorbing region acts as a black matrix to separate at least one part of said fiber from another part of said fiber.

12. The fiber of claim 1, wherein said fiber is composed of a material selected from the group consisting of:

a) glass; and

b) plastic.

13. The fiber of claim 1, wherein at least one part of said fiber is colored.

14. The fiber of claim 1, wherein said lens function corrects for a chromatic aberration.

15. An electronic display comprising at least one fiber of claim 1, wherein said display is a multiple view display.

16. An electronic display comprising at least one fiber of claim 1, wherein said display is a three-dimensional display.

17. The electronic display of claim 16, wherein said three-dimensional display is a stereoscopic display.

18. The electronic display of claim 16, wherein said display is created by varying a focus of an image independently at each individual pixel.

19. The electronic display of claim 16, wherein said display is created by dynamically varying a distance of a perceived image from a viewer pixel by individual pixel.

20. A fiber for use in an electronic display, wherein said fiber comprises:

a) at least one electrode; and

b) an aperture in said fiber such that said aperture is formed by at least one optically absorbing or reflecting region.

21. The fiber of claim 20, wherein said electrode is a metal wire electrode contained within or on the surface of said fiber.

22. The fiber of claim 20, further comprising at least one absorbing region to further define the source of light exiting said aperture.

23. An electronic display comprising at least one fiber of claim 20, wherein said display is a multiple view display.

24. An electronic display comprising at least one fiber of claim 20, wherein said display is a three-dimensional display.

25. The electronic display of claim 24, wherein said three-dimensional display is a stereoscopic display.

26. A fiber for use in an electronic display, wherein said fiber comprises:

a) at least one wire electrode; and

b) at least two transparent materials such that each of said transparent materials have a different index of refraction.

27. The fiber of claim 26, wherein said transparent materials form a lens within said fiber.

28. The fiber of claim 26, further comprising at least two material stripes contained within said fiber wherein the composition of said material stripes alternates between high and low indices of refraction such that light passing through said fiber is collimated.

29. The fiber of claim 26, wherein a plurality of alternating high and low index of refraction material regions are formed within said fiber such that said regions redirect light passing through said fiber.

30. The fiber of claim 26, further comprising a waveguide wherein said waveguide is formed from said two transparent materials such that said waveguide directs light through an aperture created in said fiber.

31. An electronic display comprising at least one fiber of claim 26, wherein said display is a multiple view display.

32. An electronic display comprising at least one fiber of claim 26, wherein said display is a three-dimensional display.

33. The electronic display of claim 32, wherein said three-dimensional display is a stereoscopic display.

34. The electronic display of claim 32, wherein said display is created by varying a focus of an image independently at each individual pixel.

35. The electronic display of claim 32, wherein said display is created by dynamically varying a distance of a perceived image from a viewer pixel by individual pixel.

36. A method of creating a fiber for use in an electronic display comprising the steps of :

a) forming a preform including at least two distinct materials to be used in said fiber; and

b) drawing said preform to form said fiber.

37. A method of creating a fiber of claim 36, wherein said preform is formed by co-extruding said distinct materials into a preform.

38. A method of creating a three-dimensional image in a display having multiple electrodes and lens curvatures at each pixel that define an appearance of depth of said image at each pixel, comprising:

a) subdividing a voltage that creates said appearance of depth in at least one pixel location between more than one of said electrodes in said at least one pixel location such that said appearance of depth is perceived by a viewer to be between either appearance of depth created by applying said voltage to any one of said electrodes individually.

39. A method of creating a three-dimensional image in claim 38, further comprising dividing the light intensity map in said at least one pixel location between more than one of said multiple electrodes to create said three-dimensional image.